

A NEW SPECIES OF *TETRASTICHUS* (HYMENOPTERA:  
EULOPHIDAE) FROM INDIA<sup>1-2</sup>M. A. KHAN<sup>3</sup>

(With eleven text-figures)

*Tetrastichus* Haliday 1843

Genotype: *Cirrospilus attatus* Walker by original designation [= *miser* (Nees)].

The genus *Tetrastichus* Haliday is a useful member of the Chalcidoidea which attacks a wide variety of hosts, including important pests of agriculture crops such as caterpillars, stem-borers, leaf miners, aphids, beetles, midges and thrips. The parasites attack different stages of the host including eggs, larvae, nymphs and pupae. They are either primary parasites or hyperparasites. Some of the species of *Tetrastichus* have also been reared as secondary parasites. The species described here has been reared as a secondary parasite upon cocoons of *Apanteles* sp. (Hymenoptera: Braconidae) on the larvae of Bihar hairy caterpillar, *Diacrisia obliqua* Walker (Lepidoptera: Arctiidae).

The genus has been revised by Burks (1943) and the generic characters proposed by him apply well to this species.

***Tetrastichus pantnagarensis* sp. nov.**

## FEMALE:

**Head:** Brownish with yellowish reflections, reticulate sculpture, wider than long in frontal aspect (0.6:0.48) (Fig. 1), width of frons between eyes less than twice the width of head, frontovertex wide (0.35), sparsely setose, ocelli arranged in obtuse angle triangle, basal ocelli removed from eye rim by almost twice the diameter of an ocellus; eyes setose; distance between

antennal sockets less than one sixth width of frontovertex at median ocellus, antennal sockets with their basal margin well above the level of the basal ocular line, distance between antennal sockets and eye twice the distance between two antennal sockets; malar space shorter than eye length, subocular suture distinct; mandibles tridentate with two teeth and a truncation (Fig. 2), maxillary (Fig. 3), and labial palpi (Fig. 4) one segmented.

**Antennae** (Fig. 5): Uniformly brown except scape yellowish, sparsely setose, scape cylindrical, more than three times longer than wide (0.16:0.05), pedicel twice as long as wide (0.09:0.045), funicle with a ring, segments elongated, first funicle segment very long (0.14:0.05), 2nd and third segment subequal in size (0.11:0.06), club three segmented, three times longer than wide (0.21:0.07), shorter than preceding two funicle segments united; first funicle to last club segment with 9,10,12,12,10 and 5 sensoria respectively.

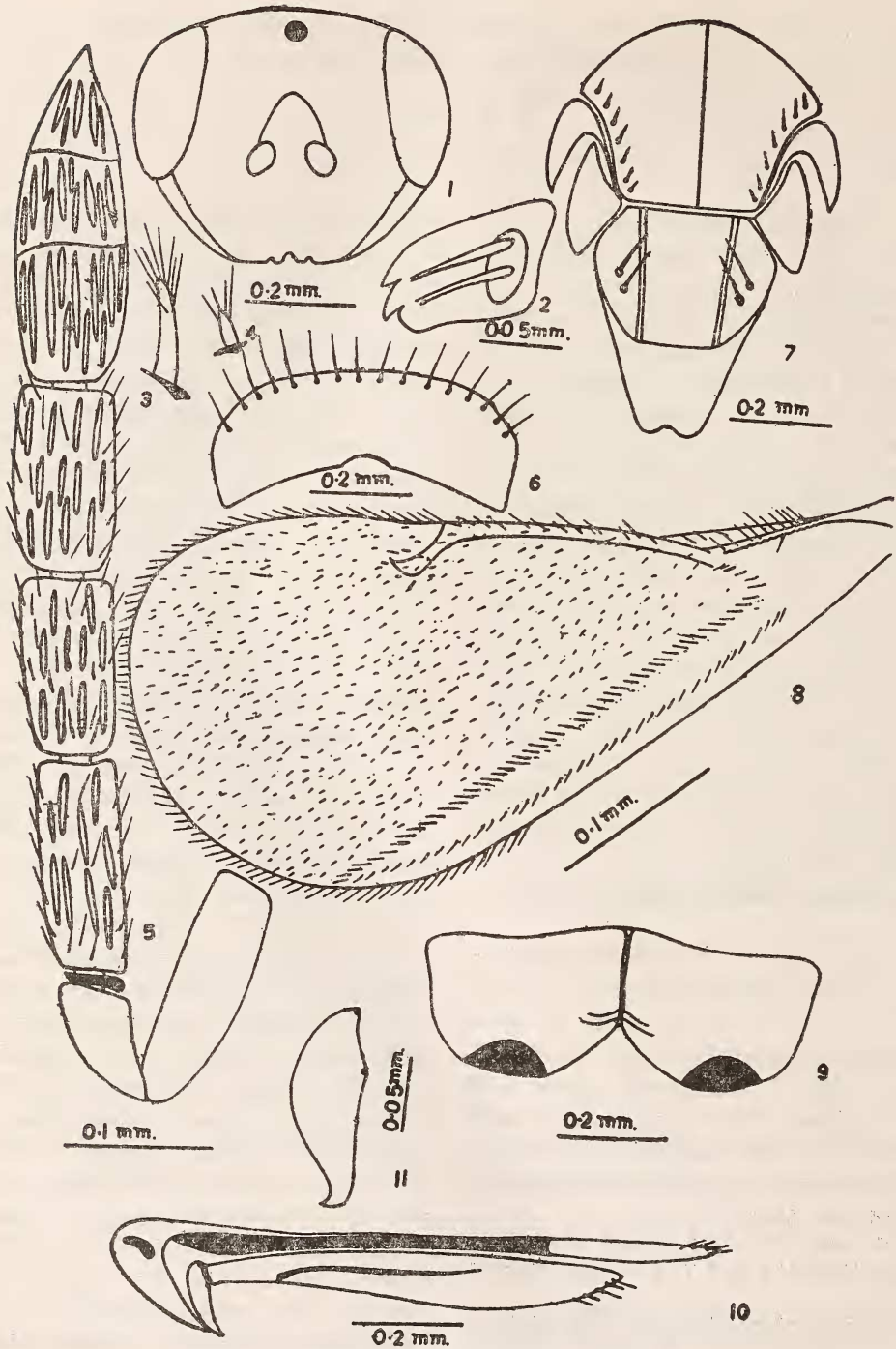
**Thorax** (Fig. 7): Brown with yellowish reflections, with fine reticulate sculpture, pronotum (Fig. 6) wide with a notch in the middle of anterior margin, posterior margin convex with 16 setae, scutum convex with longitudinally fine striate, wider than long (0.4:0.27) with a median groove, seven small setae at each lateral side of the scutum, scutellum shorter than the scutum, with distinct longitudinal grooves and with two pairs of strong setae; postscutellum, slightly shorter than the propodeum measured in the middle; mesopostpragmum long, notched at apex.

**Fore Wings** (Fig. 8): Hyaline, twice as long

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<sup>3</sup> Deptt. of Entomology, G. B. Pant Univ. of Agric. & Tech., Pantnagar, U.P. 263 145, India.



Figs. 1-11. *Tetrastichus pantnagarensis* sp. nov., ♀  
 1. Head, frontal aspect; 2. Mandible; 3. Maxillary palp; 4. Labial palp;  
 5. Antenna; 6. Pronotum; 7. Thorax; 8. Forewing; 9. Subgenital plate;  
 10. Ovipositor; 11. First valvifer.

NEW DESCRIPTIONS

as wide, costal cell narrow with three distinct setae, submarginal vein with 10 setae, post-marginal vein wanting, stigmal vein (0.04) almost one third length of marginal vein (0.11), marginal fringe short.

*Hind Wings*: Almost four times longer than wide, apex of marginal vein with three hooklets, marginal fringe long, spaced by a distance almost equal to one fifth length of a fringe.

*Fore Legs*: Coxae, trochanter and almost three fourth of the tibiae dark brownish, rest of the leg yellowish, femora compressed.

*Middle Legs*: Coloration same as of forelegs except the last tarsal segment brown; tibial spur short, apical rim of tibial with 3 short pegs.

*Hind Legs*: Coloration same as of fore legs except the last tarsal segment brown, two long setae on outer face of the base of coxae, femora much compressed, tibial spur short.

*Abdomen*: Brown with yellowish reflections, triangular, longer than thorax; subgenital plate (Fig. 9) with anterior margin concave in the middle, the central notch of its posterior margin with laterally directed ridges; outer plates of ovipositor with a ridge in the middle (Fig. 10), first valvifers (Fig. 11) semicircular with articular knobs prominent, second valvifers (Fig. 10) thickened on dorsal margin throughout, third valvulae long, lanceolate (Fig. 10), movably articulated with second valvifers; ovipositor slightly exerted.

*Female Length*: 1.51 mm.

*Male* : Not known.

*Holotype* ♀, India, U.P., Nainital, Pantnagar, 10-4-1979, emerged from the cocoons of *Apanteles* sp. (Hymenoptera: Braconidae) on the larvae of *Diacrisia obliqua* (Walker) on sugarbeet (R. C. Chibber), Cat. No. Eulo. 1004.

*Paratype* 8 ♀ ♀ same data as holotype, Cat. No. Eulo. 1005. Material will be deposited in the Zoological Survey of India, Calcutta.

*Tetrastichus pantnagarensis* sp. nov. resembles *Tetrastichus inferens* Yoshimoto, 1970 from which it can be distinguished as follows:

<i>Tetrastichus inferens</i> Yoshimoto	<i>Tetrastichus pantnagarensis</i> sp. nov.
i) Body dark brown or black with slight blue green iridescence	i) Brownish with yellowish reflections
ii) Head slightly broader than mesonotum	ii) Head distinctly broader than mesonotum
iii) Malar space about 1/3 height of compound eye	iii) Malar space not so, but slightly shorter than height of compound eye
iv) Mandibles sharply bidentate	iv) Mandibles tridentate with two teeth and a truncation
v) Scape less than five times longer than wide, pedicel very long, longer than first funicle segment, funicle segments gradually broadening apically, club slightly more than twice longer than wide, longer than preceding two funicle segments combined.	v) Scape three times longer than wide, pedicel very short slightly more than half the length of first funicle segment, funicle segments elongated, first funicle segment very long, second and third segment subequal in size, club three times longer than wide, shorter than preceding two funicle segments combined.
vi) Scutum with three pairs of adnotaular bristles	vi) Scutum with seven pairs of adnotaular bristles
vii) Stigmal vein about one-fifth length of marginal vein.	vii) Stigmal vein almost one-third length of marginal vein.

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REFERENCE

BURKS, B. D. (1943): The north American parasitic wasps of the Genus *Tetrastichus* — A contribution to Biological control of insect pests. *Proc. U.S. Nat. Mus.* 93: 505-608.

YOSHIMOTO, C. M. (1970): A new species of *Tetrastichus* (Hymenoptera: Eulophidae) parasitizing pupae of *Sesamia inferens* (Lepidoptera: Noctuidae). *Cand. Ent.* 102 (12): 1607-1609.

ON A NEW SPECIES OF GENUS *ASPIDOMYCTER* MARSHALL  
(COLEOPTERA: CURCULIONIDAE: EREMNINAE) FROM INDIA<sup>1</sup>

H. R. PAJNI AND C. S. SIDHU<sup>2</sup>

(With six text-figures)

A new species, *A. laeicollis* has been described under genus *Aspidomycter* Marshall. A key to the three so far known Indian species in this genus has been included and the characters of the genus have been elaborated. The structure of the male and female genitalia of *A. lunatus* Marshall has also been included.

INTRODUCTION

We have studied more than one hundred species of subfamily Eremninae during the course of a five year U.S. PL-480 project on Indian Curculionidae. As many as 49 new species and 9 new genera have been proposed under this subfamily. The present communication deals with a new species of genus *Aspidomycter* Marshall.

The genus *Aspidomycter* was raised by Marshall (1943) on a type species, *A. lunatus*. He also described a new sub-species namely *A. lunatus lefroyi* to which he later on (Marshall 1944) accorded the status of a valid species. The present new species thus marks the record of a third species under the same genus. Keeping in view the current knowledge on the genus

*Aspidomycter*, the characterization of this genus has been revised and a key to all the three Indian species has been given. The structure of the male and female genitalia of *A. lunatus* Marshall, also studied by us, has been included.

RESULTS AND DISCUSSION

Genus *Aspidomycter* Marshall

Marshall, *Ann. Mag. Nat. Hist.* (11) 10, p. 108 (1943); (11) 11, pp. 77, 81 (1944).

Head with dorsal area of rostrum broadly ascending its anterior part, and terminated posteriorly by a deeply impressed transverse line; eyes circular, somewhat convex. Rostrum very broad, dorsal area elevated and without any median sulcus or carina; epistome elongate, its margins carinate and forming an acute angle behind; scrobes short, curving inwards, suddenly effaced behind; mentum with four setae. Antennae with scape curved, gradually clavate;

<sup>1</sup> Accepted March 1982.

<sup>2</sup> Department of Zoology, Punjab University, Chandigarh-160 014.